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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			LE, LANA N	
			ART UNIT	PAPER NUMBER
			2618	

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Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Claim Objections

1. Claims 4, 5, and 11 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 3, 3-4, and 7 respectively. See MPEP § 608.01(n). Accordingly, the claims 4, 5 and 11 have not been further treated on the merits.
2. Claim 3 lacks antecedent basis from claim 1.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 7, 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Hidekuni et al (JP 2001-024619).

Regarding claim 1, Hidekuni et al disclose a radio receiver unit (fig. 21) comprising:

receiving means (1-9, 9') for receiving RF (radio frequency) signals (figs. 21-22);

a filter (42, 42') arranged in a stage succeeding said receiving means (1-9, 9')

and is capable of being turned on or off (via 45, 45') (paragraphs 90-92);

Art Unit: 2618

estimating means (19) for estimating the magnitude of electric power of interference waves (adjacent channel power) contained in said RF signals and for producing an estimated value corresponding to the magnitude of said electric power (paras. 47, 92; figs. 3, 21); and

control means (switch control from 19 to switches 45, 45') for turning said filter off during a period in which said estimated value (adjacent channel power) is smaller than a threshold value (request channel power) (para. 47, 92).

Regarding claim 2, Hidekuni et al disclose a radio receiver unit (figs. 21-22) comprising:

receiving means (1-9, 9') for receiving RF signals (see figure 21);

a filter (filters 42, 42') arranged in a stage succeeding said receiving means and is capable of being turned on or off (paras. 90-92);

demodulating means (signal recovery means 12, 13, 14, 15) for demodulating first received signals of before passing through said filter or for demodulating second received signals after having passed through said filter (paras. 20, 90);

estimating means (channel detecting means 19) for estimating the magnitude of electric power of interference waves (power of adjacent channel interference) contained in said RF signals and for producing an estimated value (power ratio) corresponding to said magnitude (paras. 90-92); and

control means (19, 45, 45') for so controlling said filter (42, 42') as to be turned off during a period in which said estimated value (adjacent channel power) is smaller than a threshold value (request channel power).

Art Unit: 2618

Regarding claim 7, Hidekuni et al the radio receiver unit according to claim 1 or 2, wherein said receiving means has a function for receiving said RF signals corresponding to a receiving channel (request channel) selected out of a plurality of channels, and said estimating means (19) effects the estimation upon temporarily receiving RF signals corresponding to a second channel (adjacent channel) in a frequency band neighboring a first channel in which said desired waves exist among said plurality of channels (paras. 2, 92).

Regarding claim 9, Hidekuni et al disclose a radio receiver unit (figs. 21-22) in capable of changing the operation mode over to a normal power consumption mode or to a low power consumption mode which the consumption of electric power is small during the operation (power saving when the filter is determined to be not necessary; para. 92), comprising:

receiving means (1-9, 9') for receiving RF (radio frequency) signals that contain desired waves; a filter (42, 42') arranged in a stage succeeding said receiving means (1-9, 9') and is capable of being turned on or off (paras. 90-92); and control means for turning said filter off during said low power consumption mode (comb filter is not needed or turned off during power save mode) (para. 92).

Regarding claim 10, Hidekuni et al disclose a radio receiver unit capable of changing the operation mode over to a normal power consumption mode or to a low power consumption mode in which the consumption of electric power is small during the operation (power saving when the filter is determined to be not necessary; para. 92), comprising:

receiving means (1-9, 9') for receiving RF signals (figs. 21-22); a filter (42, 42') arranged in a stage succeeding said receiving means (1-9, 9'); demodulating means (signal recovery means 12-15) for demodulating first received signals of before passing through said filter (42, 42') or for demodulating second received signals after having passed through said filter (paras. 20, 90); and control means (19, 45, 45') for so controlling said filter (42, 42') as to be turned off during said low power consumption mode (turning off filter when there's no effect of adjacent channel interference; para. 92).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hidekuni et al (JP 2001-024,619) in view of Takashi et al (JP 2001-016121).

Regarding claim 3, Hidekuni et al disclose the radio receiver unit according to claim 1 or 2, wherein Hidekuni et al do not disclose the estimating means effects the estimation by comparing and judging the power values of said first received signals and

Art Unit: 2618

of said second received signals. Takashi et al disclose the estimating means effects the estimation by comparing and judging (via 4a, 4b, 5) the power values of said first received signals (12) before passing filter 3a and of said second received signals (6) after passing filter (3a) (see figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to compare the signal before and after filtering in order to detect if most of the interference has been filtered out or more filtering is needed.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hidekuni et al (JP 2001-024,619) in view of Muraoka (US 2003/0,095,511).

Regarding claim 4, Hidekuni et al disclose the radio receiver unit according to any one of claims 1 to 3, wherein Hidekuni et al do not disclose the estimating means effects the estimation periodically. Muraoka discloses wherein the estimating means (19) effects the estimation periodically (fig. 10; para. 24). It would have been obvious to one of ordinary skill in the art at the time the invention was made to periodically estimate the interference level in order to sporadically check the interference level and detect if the interference level is high.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hidekuni et al (JP 2001-024,619) in view of Palenius et al (US 6,373,878).

Regarding claim 5, Hidekuni et al disclose the radio receiver unit according to any one of claims 1 to 4, wherein Hidekuni et al do not disclose the estimating means effects the estimation during a period in which the receiving means is receiving RF signals without the desired waves. Palenius et al discloses wherein the estimating

means (19) effects the estimation during a period in which the receiving means is receiving RF signals without containing the desired waves (col 3, lines 52-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to estimate the interference without the desired signals in order to calculate the amount of interference in a steady state condition without error.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hidekuni et al (JP 2001-024,619) in view of Jagger et al (US 6,807,405).

Regarding claim 6, Hidekuni et al disclose the radio receiver unit according to claim 1 or 2, wherein Hidekuni et al do not disclose the control means turns said filter off when a period in which said estimated value is smaller than the threshold value continues for a predetermined period of time. Jagger et al disclose control means turns said filter off when a period in which said estimated value is smaller than the threshold value continues for a predetermined period of time (col 5, lines 3-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to turn off the filter after a predetermined period of time in order to assure that the interference level is low enough to not require the filter.

8. Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hidekuni et al (JP 2001-024,619) in view of Nago (US 5,974,101).

Regarding claim 8, Hidekuni et al disclose the radio receiver unit according to claim 7, wherein Hidekuni et al disclose the estimating means effects the estimation prior to starting the communication or when the communication quality is deteriorated (para. 92). Hidekuni et al do not disclose the radio receiver unit is a wireless terminal

Art Unit: 2618

used in a wireless LAN system that includes a base station and the wireless terminal for effecting the communication with said base station. Nago discloses the radio receiver unit is a wireless terminal used in a wireless communication system that includes a base station and the wireless terminal for effecting the communication with said base station (col 19, lines 30-40; col 18, lines 12-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the radio receiver unit in a wireless terminal in order to prevent severe interference from causing a wireless connection to be dropped. Hidekuni et al and Nago do not disclose a wireless LAN system. However, it is well known and notoriously old in the art to implement the wireless communication system of Hidekuni et al and Nago in a wireless LAN system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a wireless LAN system in order to wirelessly connect the mobile and peripheral devices within a small area such as a building or campus.

Regarding claim 11, Hidekuni et al disclose the radio receiver unit according to any one of claims 1 to 7, 9 and 10, where Hidekuni et al do not disclose the radio receiver unit is a wireless terminal used in a wireless LAN system that includes a base station and the wireless terminal for effecting the communication with said base station. Nago discloses the radio receiver unit is a wireless terminal used in a wireless communication system that includes a base station and the wireless terminal for effecting the communication with said base station (col 19, lines 30-40; col 18, lines 12-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the radio receiver unit in a wireless terminal in order to

Art Unit: 2618

prevent severe interference from causing a wireless connection to be dropped.

Hidekuni et al and Nago do not disclose a wireless LAN system. However, it is well known and notoriously old in the art to implement the wireless communication system of Hidekuni et al and Nago in a wireless LAN system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a wireless LAN system in order to wirelessly connect the mobile and peripheral devices within a small area such as a building or campus.

Conclusion

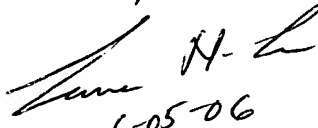
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lana N. Le whose telephone number is (571) 272-7891. The examiner can normally be reached on M-F 9:30-18:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lana Le


6-05-06
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PRIMARY EXAMINER